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(54) Title: **OPTEOELECTRONIC DEVICES**

(57) Abstract: A light emitting semiconductor device (10) mounted on a heat sink (16) and having a heat pipe (18) located on its upper surface (12). The heat pipe (18) comprises a sealed cylindrical member of transparent or translucent material having a wick (20) disposed down the side and along the bottom thereof. The heat (18) is partially filled with a liquid which is placed under a partial vacuum to reduce its boiling point. A bundle of optical fibres may be provided within the heat pipe (18), with the gaps created between the optical fibres providing an efficient capillary action within the heat pipe (18) for transport of vapour to the cool end of the pipe (18) and for transport of condensed coolant to the hot end of the pipe (18).

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